

S A F E T Y

E

Two Sections • Section One



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The NATIONAL SAFETY COUNCIL, the heart of the safety movement in America, collects and distributes information about accidents and methods for their prevention. Organized on a nonprofit basis, the Council promotes safety in industry, traffic, school, home and on the farm.

SAFETY EDUCATION is the official publication of the School and College Division of the Council.

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SAFETY

Volume

XXXI

No. 6

Section

One

E^{Education}

• A MAGAZINE FOR TEACHERS AND ADMINISTRATORS



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Over my shoulder

Dean Trabue says that statistical tables, alone, may fail to convince a college instructor of the need for including safety in his course. The North Carolina Division of Vocational Education, as if in response to the dean, includes with its statistics a number of bar graph studies of student school shop accidents in North Carolina.

Sane conduct.

Acute senses.

Fair attitudes.

Emotional stability.

Trained responses.

Yearly emphasis.

Evaluation of programs.

De-emphasize daredevils.

Unified effort.

Centralized controls.

Attention to details.

Teach total traffic.

Inhibit irrational acts.

Outlaw officiousness.

Never neglect.

—Homer Allen

Just what value do classes in driver education have? A. R. Lauer, director of the driving laboratory at Iowa State College, Ames, has begun a five-year study in an attempt to arrive at a definitive answer. His plan of attack is the topic of his paper.

Specialists in safety education have a tougher job, according to an analysis made by Charles R. Cox, than do anthropologists. The latter search for only one missing link. Teachers of safety, he says, have three to find: a psychological link, a financial link and an organizational link. His article was prepared for the 39th National Safety Congress.

On the other hand, teachers need not be voices crying in the wilderness. There are many non-school agencies anxious to help teachers of safety. One of these is Operation Safety. Its director, J. R. Shinn, describes the April issue which, he feels, may be of particular assistance.

The cover of SAFETY EDUCATION has quite a history. Sometime prior to September, 1949, Frank Davin, editor of *Public Safety*, and Ralph Moses, art director for the National Safety Council, went into a conference which resulted in a sketch "It's Her Street, Too," which appeared as the cover of *Public Safety* on September, 1949. The Mass Marketing Institute picked it up and distributed it as an outdoor billboard. The National Safety Council re-issued it as a poster. Then Operation Safety made a film trailer using the idea. This cover was photographed by J. R. Shinn, who wrote the article in this issue on Operation Safety.

despite progress in safety

We Have Not Yet Found Most Effective Method

by CHARLES R. COX

LET US consider the safety movement in the United States and what is wrong with it. Real progress in accident prevention has been made. Since 1900 the "all accident" death rate per 100,000 population has been reduced about one-third. However, in 1950 over 35,000 Americans were killed in automobile accidents and 55,000 more in other kinds of accidents, totaling more than six times as many as have been killed in Korea since the beginning of the war there.

Consider these figures—in one year 90,000 dead and 9 million injured, at a total cost of \$7,300,000,000 in money and an incalculable amount in suffering and mental anguish.

Statistics are dry things—instead of the 90,000 dead, perhaps it would mean more if we think of the sorrow and deprivation in 90,000 homes resulting from the death of a member of the family, in many cases the breadwinner, due to an avoidable accident.

Despite the progress in accident prevention that has been made, we have not yet found a way to bring home to the individual the importance of safety to him personally. He thinks of safety as something for somebody else. We have not been successful in making the individual sufficiently concerned about the accident "that has not yet happened."

There is a missing link somewhere, between our efforts to prevent accidents and the results we have thus far achieved. This missing link is really three links which are psychological, organizational, and financial in character.

What can be done about it?

THE PSYCHOLOGICAL missing link stems from the fact that safety involves more than putting up warning signs, safety guards on machines, and painting moving parts yellow. It involves men's minds.

The steel industry, after notable progress in reducing accidents by the installation of millions of dollars of protective equipment and devices, found that no matter how many more dollars were spent, the accident rate held steady. The men themselves were no more safety conscious than they had ever been, and through neglect and misuse were circumventing the mechanical safeguards. Since the problem was mental and psychological, the solution was found in safety education.

But substantial further progress will have to come from more fundamental safety education than can be given in industrial plants.

The safety movement in this country will not be fully effective until we accept the concept of safety as an important part of the American way of life, and this means that it must be taught in childhood in our homes and schools. In some manner the individual must be made to think safety—so that he will act safely at all times.

THE ORGANIZATIONAL missing link is due to the comparatively small number of cities throughout the United States which have organized community safety programs in operation. There are more than 1,200 cities of over

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Safety Education for February, 1952

10,000 population, but only about 200 of them have safety organizations which are affiliated as chapters with the National Safety Council. Generally speaking, the programs are effective and well run. In 120 of the remaining cities there are organized community safety programs, but the programs are less effective, often incomplete, haphazard, and part-time. This leaves 1,000 cities, most of which are between 10,000 and 25,000 population, with no organized safety programs.

The inauguration of many more community safety programs and the improvement of existing programs is essential if the effectiveness of the safety movement is materially to be increased. Safety programs must be carried down to the smaller communities of between 10,000 and 25,000 population, and even below.

THEN THERE IS THE FINANCIAL missing link. At present not one person in a thousand makes any direct contribution to safety nor would he know how to go about doing so if he wanted to. People would be more conscious of the importance of the safety movement if they contributed to it financially. Getting the financial support of a substantial proportion of the rank and file of the citizens of this country is an important step toward making the safety movement more effective. "Grass Roots" support is a "must" and the quicker we organize to get it the better.

How Industry Can Help

What can industry do to help forge these missing links?

In the first place industry can help persuade our people to think and act in accordance with the concept of safety as a fundamental of our American way of life and it should urge that this concept be taught in our schools and homes.

Industry can help further by assisting in the development of the school safety programs, by furnishing advice and assistance, and by lending safety equipment and materials for the presentation of the courses.

Industry can play an important part in organizing safety programs in those communities where none now exist and in improving those existing programs which are not effective. It can do this by virtue of its position in the community and through its industrial safety men, who are trained in safety and who are working at it constantly. Safety is their business, whereas others in the community, who are interested in safety, have other duties and respon-

sibilities which have first call on their time.

Industry can make no better contribution to community safety than by making available its safety engineers for helping set up community programs.

It should be the responsibility of the National Safety Council to get industry started in the inauguration of safety programs in communities not now having them. The council should draw up a simple, easy-to-follow blueprint as a stimulus and guide. I feel that the professional safety engineers are the persons best qualified to organize community safety councils. They should work through business and community leaders and obtain the people best qualified in the various phases of safety to make up the council's membership. The undertaking should have the blessing of the mayor, but care should be taken to keep the council free of politics.

Waterbury—An Example

An excellent example of a non-political safety council which has had notable success, is the one at Waterbury, Connecticut. About three years ago the mayor of Waterbury appointed a local businessman as president of the council, and asked him to choose the other members. These include the chief of police and a member of the motor vehicle department for traffic safety; the fire marshal for fire safety; a juvenile court officer for recreational safety; an educator for school safety; a city planning commissioner for home safety; a local newspaper man for publicity; and two industrial safety engineers. None of these people receives pay for work on the council and all were chosen for their particular specialized knowledge and civic interest.

Encourage Many Contributors

The industrial members, I believe, are responsible for giving the council the spark which has brought its activities to its present high level of accomplishment. The council makes available to any interested group the services of speakers, material for speeches, films, slides, literature, statistics, and other materials. It holds regular meetings and receives good publicity from local press and radio. The council serves not only Waterbury but a number of nearby towns and villages as well.

Achieving broader financial support of the safety movement is primarily the responsibility of the National Safety Council. One community that I know of that gives popular "Grass

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Illinois high school finds

Safety Is Integral in Coal Mining Course

by D. W. HORTIN

WITH THE INTRODUCTION OF A class in coal mining at Du Quoin Township high school last year, something new was added to the curricula of high schools in Illinois. Previous to the 1949-50 school year no other school is known which made a course in coal mining available to its pupils.

The principal source of Du Quoin's income is coal. About fifty-one per cent of the parents of the 440 pupils enrolled in Du Quoin Township high school gain their living from mining. Many of the graduates of the school make mining their life's work. It was for this reason

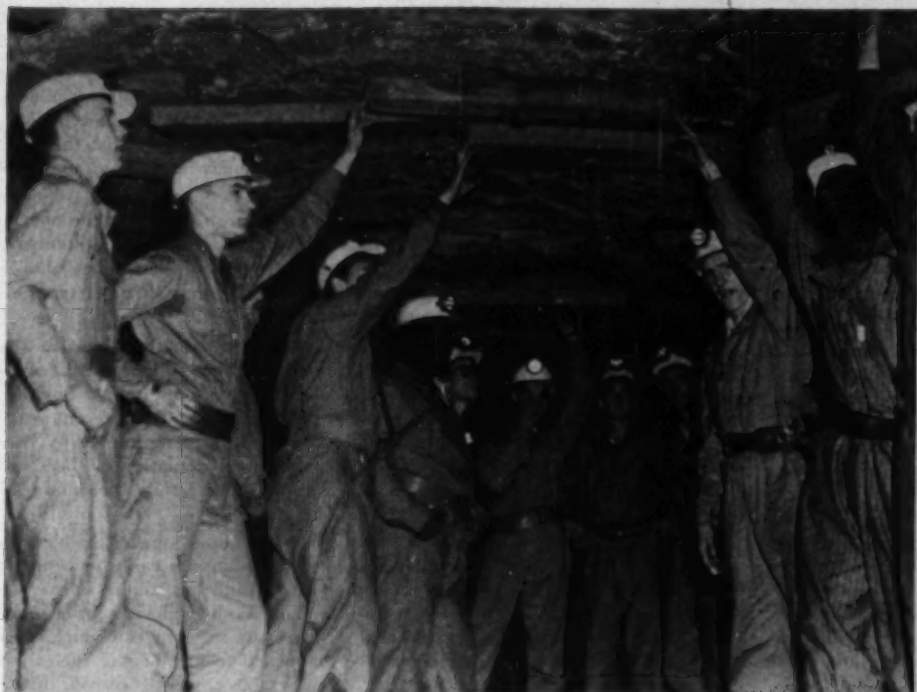
that a course in coal mining was offered at D. T. H. S.

Before the course was offered, the school people, under the direction of R. P. Hibbs, principal, held extensive consultations with local, state and national experts both in the field of education and of coal mining. Particular attention was paid to the local community which has, subsequently, given continuing support to the program.

The science instructor, Charles Swinney, spent a summer vacation working in the mines preparatory to teaching the course.



Coal mining has the highest accident severity rate and the second highest frequency rate of all industries reporting to the National Safety Council. These boys, (left) pupils in the Du Quoin (Ill.) Township high school class in coal mining, are on a field trip where they see a coal-loading machine at work. Not all underground shafts (facing page) permit men to stand erect. Here the boys see a new method of supporting shaft roofs. Long bolts are anchored in the solid rock overhead. Then timbers are fastened to the lower ends of the bolts to keep fragments from scaling and falling.



The course was not intended to make mining engineers or mining experts out of the high school pupils. Instead, its purpose was to acquaint the young men of the area with the advantages and disadvantages of earning a living as a miner, with the problems of mining, with the varied skills involved in mining, with the opportunities for advanced mining studies, and with the vocations and careers in mining.

One of the objectives of the course in coal mining is the allied teaching of safety.

As a result of the consultations with the various mining people, it was decided that a good background course in coal mining would contain units on the following:

- Safety;
- First aid;
- Geology and the formation of coal;
- Mine surveying;
- Mine gases and their control;
- Ventilation;
- Tracks and transportation;
- Explosives and blasting;
- Mine timbering;
- Drainage and pumping;
- Mine electricity;
- Preparation of coal;
- Chemistry and heat value of fuels.

Even though separate units may be taught in safety and first aid, it is obvious that in virtually all the units the elements of safety are involved.

In order that they may have some understanding of the hazards involved in mining, the accident statistics given to the pupils are broken down in such a way that the pupil can see which types of accidents are the most prevalent, which occupations are the most hazardous, and which groups of mine employees suffer accidents most frequently.

Confronted with unquestionable proof that accidents occur with regularity despite such precautions as are taken, it is comparatively easy to convince the pupils of the need for safety education. It is thought, here, that if the children are instructed in safe living from the time they enter kindergarten until they leave school, those who work in mines will be careful.

Coal mining has the second highest accident frequency rate of all the industries reporting to the National Safety Council with almost 44 disabling injuries per million man hours, a rate more than four times as high as the all-industry average. Its accident severity rate is the highest

of all industries reporting to the National Safety Council.

With these facts in mind it was considered doubly important to emphasize the safety aspects in D. T. H. S. course in coal mining. In the course it is pointed out that dangers lurk everywhere in the occupation of mining. Safety education begins wherever accidents are likely to occur. Since accidents can happen almost everywhere, safety is stressed everywhere.

Mines of Two Types

There are two types of coal mines in this section of Illinois, shaft mines and strip mines. In shaft mines, where the men work deep underground and, perhaps, miles away from the entrance a variety of dangers is always present. Carbon dioxide gas, called "blackdamp" is sometimes found in lethal quantities. The gas is non-poisonous but it replaces oxygen which is necessary for life. In some mines "white damp" or carbon monoxide gas is formed. It is both poisonous and easily ignited. A third gas, frequently found in mines, is "fire damp" or methane, which is explosive. Gas explosions in mines are usually confined to one part of a mine and are usually not the direct cause of catastrophic loss of lives. The most serious consequence of a gas explosion is that it may start a coal dust explosion. Finely powdered coal is highly explosive, each particle of coal dust ignites at once and starts the particle next to it. From this chain reaction a hot, explosive blast may occur throughout a large part of the mine.

This form of hazard may be successfully controlled through a process called "rock dusting," whereby a pulverized soft rock is spread throughout the mine. By holding down a lighter coal dust and by diluting the suspended dust the rock eliminates the explosion hazard.

Other Safety Hazards

Another hazard is falling rock or coal. Accidents occur while the coal is being hauled out. Roof supports are checked very carefully but sometimes not carefully enough. Cave-ins occur when the roofs of the underground mines collapse under the weight of the rock and earth above them.

In strip mining, which is done on a large scale in the Du Quoin area, there are hazards of a different type. Since most of the strip mines are electrically powered, there is always the danger of electrocution.

Gigantic electric shovels first remove the overburden of dirt from above the coal vein.

After the dirt is removed and piled up, further operation of the coal mine is carried on with mechanized equipment. As a matter of fact most of the work of mining, both strip and shaft, in this area is done with mechanical equipment. It follows, therefore, that the hazards of power machinery are added to those peculiar to mining.

A variety of skills are required in the operation of a strip mine. Carpenters, plumbers, electricians, truck drivers, drillers, oilers, shovel operators, loaders and dozens of other types of workers are needed.

Other, but associated, hazards to health are exposure to coal dust, gas fumes, lack of sunshine, all contributory to respiratory diseases. The hazards have been lessened in recent years through the change from shaft mining to strip mining, through better ventilation of the shaft mines and through decreasing the hours of work.

To the high school pupils some of the hazards attendant to coal mining are easily recognized. Almost all young people in mining areas are aware of the dangers of explosions from gases and coal dust because in many cases such accidents have happened to members of their own families. Considerable emphasis is given in the D.T.H.S. course to the causes and means of preventing explosions. Having learned of the dangers of gas and dust, the pupil is also taught what to do if disaster strikes. Safety is taught here along with the chemistry of gases.

Make Many Field Trips

Other units of the course dealing with explosives and blasting, mine timbering, mine electricity, mine machinery and ventilation, all lend themselves readily to the study of safety.

So that the classroom instruction may be seen, by the pupils, to fit into actual practice, the class makes field trips to the local mines. In the mines it is easy to see what precautions are taken to preserve human life. It is also just as easily seen how more accidents would happen if carelessness were rife. It is very impressive for the pupils to see the great amount of time and money spent at the large local mines to protect miners. It is also very impressive to have the superintendent or manager of a mine employing 300 or 400 men explain in detail the working of the mine and show the pupils the safety measures each miner and each worker should observe on the job.

The pupils of the class in coal mining keep a scrap book made up of clippings and pictures
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Projects Help Teach Children to Be Safe

by LEONA W. GELDER

YOUNGSTERS learn fast when they learn with their hands as well as with their eyes and ears. This is a fact that we, at South Hill school, re-discovered recently.

Inspired by the activities of the upper grades during our annual Ithaca (N. Y.) Safe and Skillful Bike Riding contest, the lower grades asked if they, too, couldn't do something.

So the upper grades elected from among themselves some "teachers" who assigned problems in safety for the lower grades to solve.

For example, one class made a scene of the main street with show windows and showed people crossing at the corner with the green light, thus illustrating **Cross Only at Crosswalks**.

Another group, using colored plasticine, made models of their homes, of cars, of the roadway in a semi-rural section and of persons walking on the roadway, thus illustrating **Walk Facing Traffic**.

Particularly valuable, we thought, was the making of a vocabulary list and spelling list using unfamiliar words in the city ordinances concerning bicycles. A picture dictionary was also made of the new words.

City ordinances and street signs were explained by the child teachers of the upper grades who went, by appointment with the lower grade teachers, to the lower grades. Using toy cars, blackboard drawings, pupils as pedestrians, they made the lessons concrete. That they learned more in the "teaching" than their pupils did in receiving is a fact well fixed in the memory of all of us during our practice teaching days.

Posters of colored paper were made by the fifth and sixth graders and were displayed in an improvised "television set" in the hallway as



well as in the various classrooms. Throughout the building there were professional safety posters.

Accidents reports were clipped from the newspapers and the children wrote a short paragraph telling how the mishap might have been prevented.

The upper grades, cooperatively, made a large map of their section of the city. Then each child made a model house of plasticine and placed it on the map according to where he lived. Other things placed on the map were: models of stores, our school and playground, factories, railroad crossings, street signs and traffic signals and signs. Then each child was asked to show the safest route for him to go between school and home.

We feel our whole school has become very conscious of safety and we believe many of our pupils will put into practice the things they learned with their hands as well as with their eyes and ears.

Mrs. LEONA W. GELDER is principal of the South Hill Elementary public school at Ithaca, New York.

you may find in "operation safety"

A Tool to Win Support from Non-school Public

by J. R. SHINN

FOR SOME TIME NOW we've been giving our typewriters a concentrated workout writing about child pedestrian and bicycle safety. At one point in our efforts, one of our staff typewriters seemingly went along of its own accord. Instead of typing "Accent On Youth" it clicked out "Accident On Youth." That error—adding an "id" to "accent"—started a train of thought.

Whether it will be "accent" or whether it will be "accident" when it comes to traffic safety for youngsters in any community depends upon the interest and sincere efforts of four important groups—the children, themselves . . . parents . . . teachers . . . and the general walking-driving public.

Who in any town fails to fall into one of these classifications? Nobody, actually. Everyone must be approached; everyone must accept, sincerely, his share of the responsibility for curbing child pedestrian and bicycle accidents in his home town.

But to get any kind of concerted action in a community from groups with such a multitude of widely varying interests takes a lot of good, wholehearted cooperation and coordination.

Operation Safety offers to school people a pre-conditioned group which is more than anxious to supplement the year-round safety program of the schools with an emphasis on child pedestrian and bicycle safety.

The three principal types of persons or organizations which use Operation Safety on state and local levels and which are, therefore, willing cooperators who may be called in by



"It's Her Street, Too," a popular NSC poster comes to life and is photographed for Operation Safety.

school people, or who may volunteer their help, unsolicited, are:

State and local safety councils (including all other types of unofficial, organized groups interested in traffic safety). These groups, members of the National Safety Council, receive

J. R. SHINN is director of Operation Safety, a National Safety Council program.

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Parents and public will be encouraged to help schools teach safety by this Operation Safety poster.

Operation Safety as a regular part of the Council's services. They use the program as it fits into their specific situation. Many state groups make their own adaptations of Operation Safety and distribute these adaptations to units within their state.

Official state and local safety agencies. These official agencies are, for the most part, Governor's or Mayor's Traffic Safety Committees, state and local police organizations, traffic engineers, licensing, registration and highway officials. Again Operation Safety materials are frequently adapted by the agencies receiving the kits.

Civic and fraternal organizations on both state and local levels. These are the groups with other principal interests but with a corollary interest in safety. Frequently these groups select only one—or at most a few—of the monthly Operation Safety themes. In some instances the group will use a single monthly theme, expanded, for a year's activity.

Specifically, Child Pedestrian and Bicycle Safety program, the April issue of Operation Safety, has previously been supported by such groups as: Junior Chamber of Commerce, PTA associations, Kiwanis, Rotary, Lions, and other similar service clubs, Business and Profes-

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sional Women's clubs, the American Legion and other veterans' groups, local motor clubs, automobile dealers' and insurance agents' associations.

These are the type of people who may come to the support of school people because of their contact with the April, 1952, Operation Safety program materials on child pedestrian and bicycle safety. It may be a trained, professional safety worker such as your local safety council manager . . . it may be a public spirited citizen who has accepted the safety chairmanship of a local civic or fraternal club. Either way, their desire will be to cooperate with school safety education officials.

Some school people may be unfamiliar with Operation Safety. Each Operation Safety kit is designed to supply authoritative background information, program ideas and materials within a framework of timely and basic monthly themes to achieve continuity of interest in traffic safety through a logical change of subject from month to month. Kit materials and promotional program suggestions for April have been prepared with a greatly appreciated assist from the council's school and college division

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Drivers' responsibility will be emphasized in this Operation Safety poster sent out for April display.



NATIONAL SAFETY COUNCIL

Study of North Carolina Student Shop Accidents

ACCIDENT REPORTS do not make cheerful reading. They require effort to prepare and more effort to analyze. But the Division of Vocational Education of the North Carolina State Department of Public Instruction is convinced that this effort is well worthwhile.

In a recent issue of the Division's *Safety Newsletter*, shop instructors in the state are given a compact, clear presentation of the basic statistical information on student shop accidents, plus brief case summaries of the accidents.

An interesting feature of the report is the computation, by standard industrial methods, of the frequency and severity of lost-time accidents in various types of trade and industrial classes, taking into account the student-hours of exposure. These rates are compared graphically with rates of similar industries as reported by members of the National Safety Council.

Percentage breakdowns show the distribution of accidents by type of machine or hand tool involved, by unsafe acts and unsafe conditions, by the type of medical attention required, by the type of accident and type of injury, and by the part of body injured.

In this analysis and in the case reports, all accidents are considered, not merely those which, under industrial reporting standards, are considered lost time cases.

The Division's own summary of its 1950-1951 shop safety record, as prepared by M. D. Thornburg, assistant state supervisor, reads:

"The safety report for Trade and Industrial Education and Industrial Arts classes conducted

in North Carolina schools during the past year indicates some progress in shop safety education. Areas in which outstanding improvements were made include housekeeping, guarding of points of operation and arrangement of equipment.

"While we can be justly proud of the improvements made in these areas, they do not sufficiently off-set failures to improve in other areas to the extent expected for over-all advancement of the safety program.

"The school shop accident record indicates quite clearly that attention should be centered upon the development of a 'safety consciousness.' Reports forwarded to the state office show that more than 90 per cent of all accidents reported for school shops were due to unsafe acts. These unsafe acts were attributed chiefly to failure to observe safety rules and regulations.

"It is realized that the problem of developing proper attitudes toward safety is not confined to school shops. It is a problem common to all phases of our everyday life. Nevertheless, this fact does not lessen our responsibility for unsafe acts in school shops. Rather, it increases the responsibility for developing proper safety attitudes."

The actual data presented in the report are reproduced below. While it cannot be assumed that the experience in North Carolina would be reproduced exactly in other states, the editors of *SAFETY EDUCATION* feel that this experience is of great interest and should prove of substantial value to vocational education instructors in all states.

ACCIDENT STATISTICS, NORTH CAROLINA VOCATIONAL EDUCATION CLASSES, 1950-1951

TRADE AND INDUSTRIAL ARTS CLASSES

	Trade Classes	Industrial Arts Classes
Number Classes Reporting	190	404
Average Daily Attendance	2,459.2	6,325.5
Number Man Hours Worked	1,410,717	1,078,535
Lost-Time Accidents	17	21
Time Charge (Days lost from school)	744	536
Frequency Rate (Disabling injuries per 1,000,000 Man Hours) ..	12.05	19.47
Severity Rate (Time charge in days per 1,000 man hours)53	.50

DAY TRADE COURSES*

	Auto Mechanics	Bricklaying	Machine Shop	Textiles	Woodworking
Number Classes Reporting	13	40	35	23	49
Average Daily Attendance	156.7	559.2	416.6	263	757.6
Number Man Hours Worked	81,251	297,059	250,061	199,378	356,751
Lost-Time Accidents	1	0	3	1	10
Time Charge	1	0	3	602	127
Frequency Rate	12.31	.00	12.00	5.02	28.03
Severity Rate01	.00	.01	3.02	.36

*Statistics given for classes with daily attendance of 250 or more. This represents 84 per cent of all the Day Trade courses reported for the school year.

TYPE OF ACCIDENT

1950-1951

DAY TRADE CLASSES

	PERCENTAGE OF ALL CASES
Striking Against	55%
Struck by Flying Object	11%
Struck by Falling Object	5%
Caught in or Between	14%
Burns or Scalds	5%
Infection	
Other	8%

INDUSTRIAL ARTS CLASSES

	PERCENTAGE OF ALL CASES
Striking Against	70%
Struck by Flying Object	8%
Struck by Falling Object	3%
Caught in or Between	13%
Burns or Scalds	3%
Other	3%

MEDICAL ATTENTION GIVEN IN ACCIDENT CASES*

1950-1951

DAY TRADE CLASSES

	PERCENTAGE OF CASES
First Aid	39%
Doctor	41%
Hospital	20%

INDUSTRIAL ARTS CLASSES

	PERCENTAGE OF CASES
First Aid	67%
Doctor	24%
Hospital	9%

*Only one kind of medical attention registered for each case.

Safety Education for February, 1952

MACHINES AND TOOLS INVOLVED IN ACCIDENTS

1950-1951

INDUSTRIAL ARTS CLASSES

MACHINES

	PERCENTAGE OF CASES
Jointer	9%
Saw, Variety	7%
Saw, Band	6%
Drill Press	5%
Lathe, Wood	4%
Saw, Jig	4%
Saw, Radial	1%
Surfacer	1%
Saw, Power Hand	1%
Sander	1%
Lathe, Metal	1%
Miscellaneous*	1%

HAND TOOLS

	PERCENTAGE OF CASES
Chisels, Wood	11%
Knives	9%
Hammers	4%
Hack Saws	4%
Saws	2%
Planes	2%
Coping Saws	2%
Vises	1%
Screwdrivers	1%
Miscellaneous*	23%

*Not more than one accident of same type in group.

A COMPARISON OF SCHOOL AND INDUSTRIAL INJURY RATES 1950-51

	FREQUENCY RATE	SEVERITY RATE
AUTOMOBILE MECHANICS		
Trade Classes	12.31	.01
Automobile Industry	4.78	.50
BRICKLAYING		
Trade Classes	.00	.00
Construction Industry	19.34	2.72
MACHINE SHOP		
Trade Classes	12.00	.01
Iron and Steel Industry	11.96	.81
TEXTILES		
Trade Classes	5.02	3.02
Textile Industry	7.76	.61
WOODWORKING		
Trade Classes	28.03	.36
Wood Products Industry	18.79	.88
INDUSTRIAL ARTS		
	19.47	.50

Note: The industrial rate given in each instance is the national rate for the industry which is most closely related to that of the trade class. Frequency and severity rates are given only in cases where the daily attendance in a course is 250 or more.

MACHINES AND TOOLS INVOLVED IN ACCIDENTS 1950-1951

DAY TRADE CLASSES	PERCENTAGE OF ACCIDENTS
MACHINES	
Jointer	9%
Saw, Variety	7%
Grinder, Hand Tool	5%
Saw, Band	4%
Drill Press	4%
Surfacer	4%
Lathe, Engine	4%
Lathe, Wood	2%
Saw, Jig	2%
Saw, Radial	2%
Shaper, Wood	2%
Hacksaw, Power	2%
Milling Machine	2%
Miscellaneous*	9%
HAND TOOLS	
Chisels, Wood	7%
Saws	7%
Planes	2%
Miscellaneous*	24%

*Not more than one accident of same type in group.

PARTS OF BODY INVOLVED IN ACCIDENTS 1950-1951

DAY TRADE CLASSES	PERCENTAGE OF ALL CASES
Finger	50%
Hand	14%
Thumb	9%
Eye	7%
Foot	5%
Head	5%
Arm	4%
Wrist	2%
Leg	2%
Body	2%
INDUSTRIAL ARTS CLASSES	
Finger	53%
Hand	20%
Thumb	17%
Head	4%
Arm	2%
Eye	2%
Foot	1%
Body	1%

TYPE OF INJURY 1950-1951

DAY TRADE CLASSES	PERCENTAGE OF ALL CASES
Amputations	4%
Bruises or Contusions	7%
Cuts or Lacerations	73%
Fractures or Concussion	2%
Foreign Body in Eye	5%
Sprains or Strains	9%
Other	9%
INDUSTRIAL ARTS CLASSES	
Amputations	2%
Bruises or Contusions	9%
Cuts or Lacerations	81%
Fractures or Concussion	1%
Foreign Body in Eye	1%
Sprains or Strains	6%
Other	6%

UNSAFE ACTS AND UNSAFE CONDITIONS CONTRIBUTING TO INJURIES

DAY TRADE CLASSES	PERCENTAGE OF CASES
Improper Guarding	4%
Non-use of Personal Protective Equipment	2%
Unsafe Acts	90%
Other	4%
INDUSTRIAL ARTS CLASSES	
Improper Guarding	4%
Non-use of Personal Protective Equipment	1%
Unsafe Acts	93%
Other	2%

Five-year Iowa Program to Evaluate Driver Education

by A. R. LAUER

UP UNTIL RECENTLY LITTLE research has been done to ascertain basic facts relating to the effects of driver education, as well as to facts which might be of value in orienting the driver education program in general. To offset this deficiency the Driving Laboratory, Industrial Science Research Institute, Iowa State College, has inaugurated studies on certain of these problems to extend over a five-year period.

Many of the statistics quoted on accidents and many of the articles in the press are misleading because there are no basic figures given on the number in the groups reported, sex, etc. In many cases the groups are so large that critical points in the curve of relationship between accidents, age and other variables cannot be shown.

The first year of this study was devoted to collecting data on age, and mileage constants for each age between 14-99. Preliminary analyses have revealed some very interesting results which have not hitherto been available. Another objective of the first year's study was to secure data on a group of 5,000 drivers as a control group, and 5,000 drivers having received driving instruction in the schools. Their records are to be followed for five years and comparisons of performance made at regular periods. Since the Financial Responsibility law went into effect in Iowa on January 1, 1948 and accident reporting for the state jumped about 500 per cent over the average of several years, the consideration of accidents is limited to entries made in state records after that date. Charles Schumacher, Allstate Fellow for 1951-52 is working on a group of about 3,000 cases this year to ascertain the relationships possible to obtain from records and other sources. This study will be completed in the summer of 1952.

Another study of a group of approximately 100 drivers having known records as being accident free, another 100 having average records, and a third 100 cases designated as accident liable are being compared on various types of personal, socio-economic and psychosociological data with respect to training and accident records. This is a continuous study and requires considerable travel and visitation.

The major study being carried out this year is a 24-hour a day, 12-month survey on the age, sex, speed and other characteristics of the driving population to ascertain the hours, places, length of trip, type of car and similar observable aspects of driving. A sampling technique has been developed for this purpose.

Several other studies on the relation of age, sex and training in relation to distance judgment, reaction time, vision and other characteristics of drivers are being submitted to searching experimental investigation.

To summarize briefly and highlight the results so far obtained the following general statements which may be of interest to those working in driver education are given:

1. Any study on evaluation of driver education must be done on each of the two sexes, separately. There are about three times as many male drivers and their annual mileage is much different. Women drive only about one third as much as men. It may be that boys and girls should be trained separately.
2. Women as a group improve gradually from the time they are licensed, while men take approximately five years

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A. R. LAUER is director of the Driving Laboratory, Industrial Science Research Institute, Iowa State College, Ames, Iowa.

What's Wrong with

by HAROLD K. JACK

by NORMAN E. BORGERSON

A SURVEY OF SAFETY education programs in secondary schools would undoubtedly bring discouraging results. It is a matter difficult to understand since practically every elementary school has a good safety education program. As the junior high school grades are reached there is decreasing interest and at the senior high school level, except in a few specialized areas, the program almost disappears. An attempt to offer the reasons for this de-emphasis represents a certain amount of speculation and guesswork.

It is my view that the reason may be found in the fact that all educators agree that safety education should be taught through integration rather than as specific subject matter. At the elementary level this works out very well since the safety lessons for small children are much simpler than those of adolescents, and excellent materials are available in unlimited quantities from various councils, clubs, business organizations and agencies. At the secondary level safety education becomes much more complex. There is safety involved in the use of power tools, safety in the handling of chemicals, safety in learning to drive an automobile, safety in athletics and sports and safety on the farm involving both power equipment and the handling of animals and the like. In the secondary schools, therefore, the instructional phase becomes highly complicated and involves not only organization and administration but also public relations in dealing with the many community agencies such as the police and fire departments.

Shortcomings at the secondary level result to "Borgerson," page 36

NORMAN E. BORGERSON is assistant superintendent Department of Public Instruction, Lansing, Mich.

IT HAS BEEN CUSTOMARY to assume that there is an apparent lack of carry-over in accident prevention from the elementary school to the high school. Any lack of carry-over is probably due to definite differences which exist between the children of these two groups. In working with children it is apparent that the lessons of Safety Education have been well taught in the elementary school, and in many cases such instruction has also been vital and meaningful in the secondary school. This is evidenced by the understanding and appreciation, and often times wise application, of basic safety principles in the behavior of the school pupil. Why, then, is there so little apparent carry-over?

It appears that even though the child understands what he should do to live safely, yet, there is a differential existing between his actual practice and knowledge.

There are probably several reasons.

1. In the elementary school the child finds himself, as a rule, in a self-contained classroom unit. Usually one teacher is in charge throughout the day or if there is departmental organization there is still one teacher who is primarily concerned with his welfare. In addition, the typical elementary school is smaller than the high school and teachers know and understand their pupils, as a rule, better because of the differences in enrollment and teacher responsibilities.

On the other hand, in the high school the boy or girl is associated with a number of instructors each of whom teaches, as a rule, in a specialized field. The very nature of the high school is such that it is difficult to maintain the same close relationship as in the elementary school. This is the nature of the high school, as a rule, to "Jack," page 38

HAROLD K. JACK is supervisor for health, physical education, and safety, for Virginia.

Our Instruction in Safety?

by C. BENTON MANLEY

THE GREATER ACCIDENTAL DEATH rate of the 15 to 24 year-age group as compared to that of the 5 to 14 year-age group is due to several factors which cannot be explained in a brief discussion. It seems to me that the most important of these are the following:

1. The National Education Association *Research Bulletin*, February, 1950, says: "Ultimately, the problem of safety within the school itself is one of developing a sense of individual responsibility within each child." This fundamental principle in safety education is frequently overlooked by parents and teachers in dealing with young children. To the greatest possible extent, learning activities must be such that the assumption of individual responsibility in meeting hazardous situations is one of the important outcomes. Too often safety activities in schools are merely herding activities. Pupils are directed by teachers, the safety patrol, policemen and their parents without being given the opportunity to develop independence of action in relation to hazardous situations.

Without condemning the school safety patrol *per se*, this constitutes one of the chief shortcomings of the patrol. One has only to observe most patrols in action to recognize quickly that the children being directed by the patrol are being taught to rely upon someone else for making decisions and determining action in hazardous traffic situations.

Independence of thought and action are not developed in this manner. Pupils must learn to recognize a hazardous situation when they face it, make their own individual decisions as

to "Manley," page 38

C. BENTON MANLEY is director of secondary education of the Springfield, Missouri, public school system.

by GILBERT S. WILEY

THE REASON THAT SAFETY education received by children in the elementary schools does not carry over in the behavior of these same children as they enter their junior high school years may be explained in part by the psychological development of individuals as they mature.

In the elementary schools children are almost wholly dependent upon adults, especially in the primary grades. During the pre-adolescent years, while pupils are in the intermediate grades, there is a beginning of behavior in which children assert their independence.

During the junior and senior high school years there are the tendencies toward aggression, gaining recognition, and approval of peers and adults, and the continued drive toward independence. Daring feats to attract the opposite sex and the like find expression in the behavior of youth.

These basic drives are fraught with much danger in an age of technology. This means that safety education must not only be taught to youth of high school age, it must be emphasized even more than in the earlier years and made as practical as possible in assisting youth to avoid accidents in our increasingly complex society.

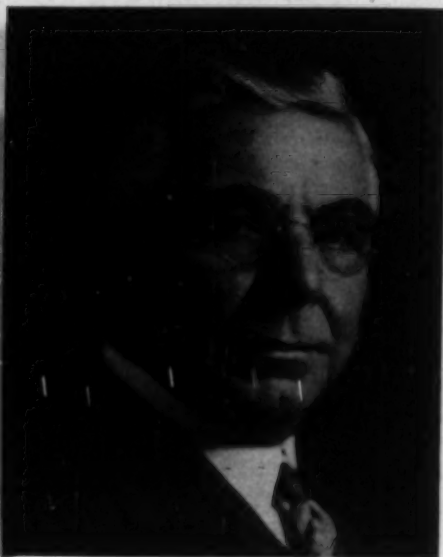
It is no more logical to expect safety instruction received in the elementary school to carry over in the behavior of high school pupils than it is to expect the experiences of elementary pupils received in arithmetic to be sufficient to help them solve problems in algebra and geometry in their high school years.

GILBERT S. WILEY is superintendent of the Winnetka Public schools, Winnetka, Illinois.

Safety Loses a Friend By Death of W. A. Irvin

William A. Irvin, chairman of the board of trustees of the National Safety Council, died January 2, 1952, in New York City after a long illness.

Mr. Irvin was born in Indiana, Pennsylvania, December 7, 1873. He started work at the age of 15 as a telegraph operator. He culminated his industrial career as president and later vice-chairman of the board of trustees of United States Steel Corporation.



Said Ned H. Dearborn, president of the National Safety Council, upon the announcement of Mr. Irvin's death:

"Safety has lost a foremost friend and leader in the passing of William A. Irvin.

"When the National Safety Council was designated by the President of the United States in 1941 to mobilize the forces of safety throughout the country to conserve manpower for war-power, Mr. Irvin was asked by the Council to head the campaign. He accepted the assignment with typical vigor and for the next 10 years gave unstintingly of his energy, time and ability.

"As chairman of the Council's Board of Trustees, he traveled throughout the country

to inaugurate and sustain the first widespread effort to seek corporate contributions to the public service program of the Council. He was unswerving in his conviction that in serving safety he was serving his country.

"In thus carrying on this volunteer work for safety Mr. Irvin was extending a sincere insistence on accident prevention that had characterized his regime as president of the U. S. Steel Corporation."

An Old Definition Of an Educated Man

Whom, then, do I call educated . . . ? First, those who manage well the circumstances which they encounter day by day, and who possess a judgment which is accurate in meeting occasions as they arise and rarely misses the expedient course of action; next, those who are decent and honorable in their intercourse with all with whom they associate, tolerating easily and good-naturedly what is unpleasant or offensive in others and being themselves as agreeable and reasonable to their associates as it is possible to be; furthermore, those who hold their pleasures always under control and are not unduly overcome by their misfortunes, bearing up under them bravely and in a manner worthy of our common nature; finally, and most important of all, those who are not spoiled by successes and do not desert their true selves and become arrogant, but hold their ground steadfastly as intelligent men, not rejoicing in the good things which have come to them through chance rather than in those which through their own nature and intelligence are theirs from birth. Those who have a character which is in accord, not with one of these things but with all of them, these, I contend, are wise and complete men, possessed of all the virtues.

—Isocrates (436-338 B.C.)

Panathenaeus, 30-33, Norlin translation.

Give New York Children Identification Tags

Metal identification tags are being distributed to all the pupils in New York City's public, private and parochial schools from the kindergarten through high school.

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New Body Contact Game Offers Fewer Hazards

by GEORGE W. HANIFORD

TO SCHOOLS looking for a new sport to add to their existing program, or for a body-contact game which offers a minimum of player hazards, may I suggest American Ball?

Touch football was eliminated from the program of intramural sports at Purdue University in 1948 because of the high incidence of serious injuries.

Realizing that a successful program of intramural sports needs at least one contact game we immediately began a survey to find a suitable replacement. This was a difficult assignment because touch football is one of the most popular intramural sports on our American campuses. Our difficulties were increased because we were looking for a game which would require a minimum of space and no special equipment.

In the screening of possible activities we came across a sport called American Ball. The rules were prepared in 1934 by Larry A. Bidlake of the Department of Physical Education and Health, School of Education, New York University. The name American Ball was chosen because elements of America's three most popular games—baseball, basketball, and football—are combined in it.

American Ball is played by two teams of nine men each on a court 108 by 60 feet. The rules closely resemble those of basketball.

An inflated ball, approximately fourteen inches in diameter is used. The ball may be carried or passed from one player to another. It may not be kicked.

The purpose of the game is to throw the ball from behind a "scoring line" to a catcher who is stationed in a "catcher's zone." The "scoring line" is drawn across the court fifteen feet from and parallel to the end line. The

"catcher's zone" is an area four feet deep directly behind and parallel to the end line.

A goal made from the field counts two points; a goal from the free-throw line counts one point. The free-throw line is the same as the "scoring line." After each goal the ball is put in play by a jump ball in the center circle.

Two fifteen-minute periods are played with an intermission of ten minutes between periods. If the score is a tie at the end of the game, play is continued for an extra period of five minutes or as many five minute periods as are necessary to break the tie.

The number of officials and their duties are the same as for basketball. The referee starts the game by tossing the ball up between two players of opposing teams in the center of the playing field.

The original rules for American Ball permitted tackling as long as tackling was not above the shoulders or below the knees. We immediately dropped this rule and instructed our officials to call a personal foul whenever the following violations were committed:

1. Tripping an opponent.
2. Grabbing an opponent above the shoulders or below the waist.
3. Using unnecessary roughness.
4. Deliberately pushing an opponent.
5. Piling on a man when he is down.
6. Deliberately throwing or knocking an opponent to the ground.
7. Interfering in any way with his opponent when the ball is tossed between them.

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GEORGE W. HANIFORD is an assistant professor at Purdue University, Lafayette, Indiana.

Approve Other Methods of Resuscitation

FOR MORE THAN A generation, the Schaefer prone-pressure method of artificial respiration has been standard in the United States—has been, in fact, considered almost sacrosanct.

Of the more than 1,000 methods proposed over the years, the Schaefer was one of the better ones. It seemed, to most people concerned with the problem, better to concentrate all training on a single method than to divert attention to others.

The Schaefer method built up a record which supported this argument. Thousands of lives were saved through its use. It was fairly easily taught, and through the Red Cross, utility companies, schools and other agencies, the number of persons trained in its use grew into the millions.

Recent research on artificial respiration has not proved the Schaefer method bad. It has, however, shown that other methods are *better*.

Three methods, in particular, have proven to give substantially greater ventilation of the lungs: the back-pressure arm-lift method, the back-pressure hip-lift method, and the Sylvester method.

Furthermore, in certain cases of paralysis of the muscles concerned with breathing, the Schaefer method is of very little value, while these three methods are very effective.

The essential difference between the Schaefer method and the three methods mentioned is that the Schaefer produces pressure to collapse the lungs and expel the air, but does not aid in getting new air in to replace it. The other methods help expand the lungs and draw in air.

The Schaefer method does a fairly good job in most cases, because, in healthy individuals not suffering from a condition causing paralysis

of the muscles of breathing, there is a natural, though limited, expansion of the lungs when pressure is released.

However, even among normal people this natural expansion does not produce the degree of ventilation that is produced by these other methods.

After long and very careful consideration of the research data, training problems, and other factors, leading organizations concerned have begun a vigorous campaign to inform the public of the superiority of the two back-lift methods, the hip-lift and arm-lift.

The American Red Cross, the Boy Scouts and the Camp Fire Girls and Girl Scouts will teach the back-pressure arm-lift method instead of the Schaefer in their future first-aid courses. The Edison Electric Institute, representing the electric utility industry, is following suit. The publications of the National Safety Council are popularizing the back-pressure arm-lift and back-pressure hip-lift methods.

In certain respects, the Sylvester method offers great advantages, and it has been widely used in European countries for many years. It is easier than the two approved methods for a small operator to apply.

It has not been recommended for general use only because it requires more skill than the back-pressure methods.

Here are the instructions for the application of the two back-pressure methods:

General

1. When a person is not breathing, time is of prime importance. Do not wait and look for help, to move the victim to a more convenient place, to give stimulants, to loosen tight cloth-

ing, or for anything else. The important thing is to get the resuscitation started at once, so get to it.

2. Put the person in the prone (face down) position, with the head turned to one side and the cheek resting on the hands, or one hand.

3. Open the mouth and sweep your finger through to pull the tongue forward and remove any obstruction.

4. Begin artificial respiration and continue it without interruption until the patient is breathing spontaneously or is certainly dead.

5. If the subject begins to breathe on his own but still requires help, adjust your rate to his breathing rate; do not attempt to force your rhythm upon him.

6. When help is available or when the victim is breathing without help get the clothing loosened and supply warmth and other measures as needed. Do not interrupt the artificial respiration for any of these purposes.

Back-Pressure Arm-Lift Method

1. Carry out the first three steps under the general instructions. Note: In carrying out the Schaefer method it was quite necessary to raise the arms in order to have the chest at maximum possible expansion. In this method this is not necessary and the only reason for having the hand or hands under the face is to keep dirt out of the mouth. In soft ground this is very important.

2. Kneel at the head of the victim on one or both knees.

3. Place your hands on the victim's back just below the shoulder blades and rock forward to exert a steady gentle pressure on the back to force air out of the lungs. Keep your elbows straight and let the weight of the upper part of your body do the work.

4. Release the pressure quickly but without giving any extra push at the release.

5. Rock backward running your hands along the victim's back and arms till you pick up his arms at a point just above the elbows. Continue rocking back, taking the arms upward and toward you. Use just enough effort to feel resistance and tension in the victim's arms. This lifts and expands the chest to permit air to enter.

6. Rock forward again, placing the victim's arms on the ground and sliding your hands down the arms and back until they come to rest again at the proper pressure point.

7. Repeat the cycle rhythmically at a rate of 10 to 12 complete cycles per minute. Each

phase of the cycle should take about 1½ seconds. The rocking motion helps to keep a steady rhythm. Your position may be changed from one knee to the other or to both during the operation but it should be done without breaking the rhythm.

Back-Pressure Hip-Lift Method

1. Carry out the first three general instructions.

2. Place one knee on the ground beside the subject's hip. Straddle him and place the other foot on the ground near the other hip.

3. Place your hands on the subject's back just below the shoulder blades with the thumbs about two inches apart along the spine. Lean forward with your elbows straight to let the weight of the upper part of your body put a steady gentle pressure on the victim's back.

4. Release the pressure quickly but without any extra push at the release.

5. Place your hands under the subject's hip bones where they touch the ground—not under the waist—and lift the hips vertically about 4 to 6 inches.

6. Gently replace the hips on the ground. Do not drop.

7. Repeat the cycle 10 to 12 times per minute. It is possible to change knees but do not break the regular rhythm of the cycle.

8. Something under the hips to give a better and easier grip is a help with this method. If a belt, towel or similar object is available use it but do not waste time looking for something. Do not put such an adjunct under the waist. It must be under the hips.

Effective Method

from page 3

Roots" support for the safety movement is Cleveland, Ohio. Here the Greater Cleveland Safety Council once a year carries on a Green Cross Dollar Membership Drive. The important thing about the Cleveland plan is not the amount of money that is raised, although it is significant, but rather, the comparatively large number of people that become interested in safety as a result of their financial support.

I believe that some adaptation of the Cleveland plan can be found which can be applied on a national scale. In any event, when the Council comes up with a way to attack the problem, industry will be able to lend substantial help through its plant safety programs and employee information channels.

Approved Methods of Resuscitation

Successors to the Schaefer prone-pressure method of artificial respiration have been recommended by the American Red Cross, the National Safety Council and other organizations interested in life saving. Illustrated on these pages are the back pressure-hip lift and back pressure-arm lift techniques.



1. Back pressure-arm lift. Victim is prone, cheek on hand, throat clear. Kneel at his head. Put your hands on his back at the base of his shoulder blades, your thumbs parallel to and 2 inches from his backbone. Gently rock forward, your weight forcing air from his lungs. This takes $1\frac{1}{2}$ seconds.



1. With the victim prone, cheek down, his throat free to admit air, straddle him, semi-kneeling, above his hips. Put your hands on his back, below his shoulder blades, your thumbs parallel to and two inches from his spine. Lean forward. Your weight will force air from his lungs. Release the pressure. This step takes $1\frac{1}{2}$ seconds.



2. You are applying pressure. Your elbows are straight. The weight of your trunk presses at the base of his shoulder blades. Without jerking, rock back so your weight is borne on your knee and foot. There is no snap, no sudden thrust as is necessary in the Schaefer method. The whole process moves smoothly.



- 2.** Put your hands under his hips catching his hip bones in your fingers. Lift his hips four to six inches upwards. This is the important change from the Schaefer method. It helps expand his chest cavity and admits fresh air to his lungs. Time: 1½ seconds. Repeat step 1.



- 3.** As you transfer your weight from the prone victim, you slide your hands down beneath his armpits to about his elbows. This is the beginning of the movement intended to ventilate his chest cavity, introducing the fresh supply of air and oxygen. As you rock backwards you carry his arms with you over his head.



- 3.** This, alternate Step 2, is easier. A towel, a belt under his hips—NOT his waist—offers a handhold. Do not wait for such help. Lower his hips gently. Repeat the cycle 10 to 12 times a minute. Match your timing with his breathing, if any.



- 4.** Rock backwards until you feel the resistance and tension in the victim's arms. Then start forward carrying his arms with you until they are close to his chest. Slide your hands up until they are on his back. The cycle requires 5 or 6 seconds. Synchronize the cycle to his breathing rhythm.

Where Do We Go from Cincinnati Conference?

by M. R. TRABUE

The logical first step to take in developing a rational reply to this question is to determine where we were at the Cincinnati Conference. The National Conference on Safety Education by Colleges and Universities was held November 19-21, 1950, at the Netherland Plaza hotel in Cincinnati, Ohio. The suggestion that such a conference should be held had come from many different organizations and individuals interested in more effective education for safe living.

The plans for the conference were developed by a planning committee consisting of approximately thirty representatives of different groups that are vitally concerned with safety education. The National Commission on Safety Education of the National Education Association sponsored the conference and assisted in its organization and conduct. President Raymond Walters of the University of Cincinnati served very effectively as host and chairman of the conference.

The 230 delegates who attended the conference represented more than 90 different institutions and organizations and came from 38 different states. There were general sessions for all participants and special sessions of working groups in six major areas: agricultural education, college community living, engineering education, liberal arts education, teacher education, and university extension service.

As the planning committee had anticipated, the working groups were somewhat unequal in size, in leadership, in creative thinking, and in quality of recommendations, but most of those

in attendance seemed to feel that the time had been well spent, and that many colleges and universities should be able as a result of the conference to plan more complete and effective programs of safety education.

At the close of the conference we had, I believe, made some desirable progress. We had (1) recognized the importance of safety education as a definite responsibility of colleges and universities; we had (2) agreed that an institution of higher education should teach its students to live safely and that it should provide them with a safe environment; and we had (3) declared our belief that many colleges and universities should carry on research and train leaders for the development and extension of safety education programs.

It should be recognized, of course, that most of the 230 delegates came to the conference well equipped with definite beliefs about these matters.

What has been done in the colleges and universities since the Cincinnati Conference? I must confess that I do not know. No systematic effort has been made to find out. I have heard of a few institutions that have discussed the desirability of organizing more effectively for the promotion of safety and safety education, but I have no direct reports of definite action.

Colleges and universities are by nature con-

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servative and slow to move. Even the president of a college may find it necessary to spend months or years in convincing his faculty and the board of trustees that a new activity needs to be initiated. If the delegate to such a conference is only a professor, it may take much longer for him to convert his colleagues, his department head, his dean, his president, and the board of trustees. The typical college cannot be expected to adopt a new program in a few months.

Another delaying factor in the situation is the lower enrollments anticipated by the colleges this fall because of the increased demands of the military services. New programs have some chance of getting started when a college is expanding in its enrollment and income; but, when enrollment and income are dropping, a new program can make very little headway.

Many Working Quietly

We need not be surprised or disturbed, therefore, by the lack of factual reports of increased activity in safety education by the colleges since November. I feel confident that many of those who attended the conference are working quietly but effectively in their own institutions and that their efforts will ultimately bear fruit. We may not have gone very far since the Cincinnati Conference, but that lack of marked progress should not discourage us.

We ought perhaps to look again at some of the directions in which we might go. One of the directions in which we might move from the Cincinnati Conference is toward a clearer and more generally accepted recognition of the important place of safety education in the total program of general education needed for effective living in the modern world.

Need More than Statistics

The various means available for developing this recognition should be carefully considered. The training in research techniques, which college faculty members usually receive in graduate school, makes them skeptical of extravagant claims that are not supported by concrete evidence.

The demand for objective evidence or facts does not mean that statistical tables alone will gain his attention and convince a college professor. Graphic representations of statistical data are far more effective as eye-catchers. Verbal comparisons and other attention-getting devices are useful in dealing with college professors provided the facts are readily available to back up a statement.

If the interest and efforts of college students and faculty members are to be enlisted, the appeal in behalf of safety and safety education should be to a richer, longer, and more interesting life for everyone, rather than to fear of injury to oneself.

Another direction in which we might move was pointed out in the reports of a majority of the work groups at the Cincinnati Conference: research. Safety education, as well as education in any other field, should be built upon verifiable knowledge. Accident records must be improved in their details and studied with greater care in order to reveal the specific factors which are most influential in causing accidents and in preventing them.

Research is needed with regard to the relative values of different preventatives, as well as with regard to the relative frequency of different causatives in the accident field.

What we need are facts—the kind of facts that only scientific research and experimentation can provide. The universities are certainly the agencies best qualified to undertake this type of unbiased research on the causes and cures of accidents.

Work Develops Interest

A student who participates in an activity which proves that proper instruction actually saves human lives tends to become interested in doing more of that type of public service. In supporting and promoting safety education research our universities have the opportunity, therefore, to recruit and train leaders of safety education for other institutions and agencies of various types.

Still another direction in which the colleges and universities might possibly move is the development of more effective over-all organizational and administrative plans for safety activities.

There are undoubtedly a number of other directions in which we might move, now that the Cincinnati Conference has been held. But, where shall we go? I cannot claim to be a prophet, so I cannot predict the future. Years of experience make it clear to me, however, that we shall not go very far in any direction unless you and I, and all the other people who are concerned about the tremendous loss of lives and of later opportunities to enjoy living that is occurring each year through so-called accidents," continue to apply all the intelligence and energy we can muster to the further development of safety activities.

Most of the accidents that occur could have been avoided by the exercise of appropriate safety habits. Substantial progress has been made in the last decade in reducing both the number of accidents and the accident rates in this country.

Approximately ten thousand persons avoided accidental death last year who would have died accidentally under the conditions that prevailed in this country ten years ago; and many additional thousands of people are today enjoying the full use of their bodies who, under the conditions of a decade ago, would today be crippled and limited in the range of their activities.

Worth Every Effort

Such progress is worth all the effort and intelligence we can recruit from every source. Colleges and universities are an unusually rich source that we have not yet used effectively. It is our job, yours and mine, to try to bring more of the energy and the intelligence that are available in institutions of higher education into this great effort to save and enrich the lives of our fellow Americans.

The responsibilities of colleges and universities in this matter of safety education do not stop at the borders of the United States. The people of every country in the world are looking to the United States for help and leadership. They are aware of our great industrial productivity and of the diversity of machines and labor-saving devices which have become a part of our way of life, and most of them would like to have some of these advantages that we enjoy.

Have a Moral Obligation

Placing modern machines in the hands of people who have not been trained to use them safely would be a tragic mistake. We have a moral obligation to supply training in the safe and efficient use of modern devices along with the devices and the machinery for making them. Our colleges and universities are a major source from which such safety education instructors must come.

In this connection I should like to emphasize again a point which is, I think, too often overlooked. We should all like to see the peoples of other countries adopting more of our democratic forms of self government. We forget, however, that in this country we have for more than a century and a half had the responsibility for making our own laws and enforcing them.

We forget that we and our fathers before us have continuously had satisfying experiences in thinking and working together for the common welfare, while in many other countries of the world the people have had few if any such experiences and have therefore never learned to think and plan and work together for the welfare of all. In most of the world people have been told by their rulers what they could and could not do, and anyone who did otherwise ran a tremendously great personal risk.

Until such people have had real satisfactions from thinking and working with other citizens to improve the conditions under which they all live, they cannot be expected to develop the social attitudes and habits which we speak of as democratic cooperation.

The introduction of modern industry and its products, if accompanied by effective safety education, would be an ideal way to build in the people of backward countries that respect for the rights of others, that concern for the welfare of all, and those habits of looking ahead and cooperating with others in efforts to make their lives together richer and more satisfying for everyone, which are fundamental psychological bases of the effectiveness of American-style democracy.

A Tool for Democracy

Safety education is potentially one of the most powerful elements in effective education for democratic citizenship.

I cannot at this moment think of any way in which our colleges and universities could make larger and more immediate contributions to the democratization of other countries than by preparing safety education leaders to accompany the modern machines and industrial "know how" which these countries are asking us to send them.

"Where shall we go from the Cincinnati Conference?" Again I reply that I don't know. I think the conference did indicate some profitable directions in which we ought to move, and I hope that it stimulated some of us to "get going." Each of us has his own unique situation from which to start and a unique set of conditions and colleagues with which to work. I can't tell you just what you should do next. I do urge, however, that we all think seriously about what can be done in our own institutions and about what further action can be undertaken jointly with other institutions and agencies. Let's resolve now that we shall all move "Forward."

Unlike "Topsy," Safety Doesn't Just Grow Up

by VICTOR E. LEONARD

SAFETY IS NOT just a casual happening. It is not a coincidence that some boys and girls are more conscious of safety than others. At North Mianus Elementary school we are proud of our safety program and practices. We realize that our record in safety is due to the cooperation of many non-school agencies, among them being the safety council and the police department in the Town of Greenwich. The fire department, too, has always given us inestimable help and information.

The National Safety Council has also contributed much to the programs that we foster throughout the school year. The literature and the posters are of great value to us. The lesson plans help our youngsters learn many facts about safe and unsafe conduct.

The National Safety Council has placed our school on its national safety honor roll for six consecutive years. In order to receive this award a school must be active and alert to the best safety practices in existence. Our school has fostered the following activities in its desire to make the child conscious of safety:

- Live and act safety daily.
- Maintain an active school safety patrol.
- Present safety assemblies throughout the year.
- Create and utilize safety posters.
- Sponsor bicycle safety programs.

How do we act and live safety in our daily school life? First, we try to indicate those things which have safety learnings in the regular schedule of activities. Teachers point out safety practices in the lessons. Pupils discuss all aspects of safety. The policeman in front of the school teaches safety—daily as he supervises the pupils' travel to and from school.

Older boys and girls help the younger children avoid the hazards of the streets and play-

grounds. The school playground is divided into play areas. Smaller children are assigned to areas separate from the areas used by the older boys. This allows the upper grades to participate in highly organized games without danger to the smaller pupils in school.

The school safety patrol is well organized. Its members volunteer for service. A committee of teachers makes the selection of patrol members from the list of volunteers. The boys and girls are "sworn in" as patrol members by an officer of the police department. Each patrol member is assigned to a specific post. He must know the responsibilities assigned to his particular position. He accepts the belt and badge from the policeman and is then an official safety patrol member. Patrol members assemble weekly for inspection by the safety patrol advisor. There are also regular meetings of the group twice a week.

The members are charged with directing pupil-traffic in and out of the building. They have jurisdiction over the pupils during the noon hour and on the school playground. They are also responsible for the traffic in the corridors. The safety patrol has been a definite asset to the school.

The value of assembly programs has been proved at our school. Usually a representative of the police department visits the school on these occasions. He talks about pedestrian and traffic problems and leads a discussion of safe and sane activities. Sometimes he shows a movie on a particular subject. He may come also to judge our safety posters.

The art teacher is especially valuable because of her skill and interest in the creation of safety

VICTOR E. LEONARD is principal of the North Mianus Elementary school, Greenwich, Connecticut.



Four samples of safety posters prepared by elementary pupils at North Mianus school as a part of a program in safety education.

posters. She has helped the children produce some very fine safety posters. Each year the pupils are asked to make posters depicting some phase of safety. The youngsters spend quite a bit of time thinking about their projects before they submit any drawings. The second time they meet the rough sketches are drawn. After much discussion and consideration, they work on the finished idea. The art supervisor, the chief of police, the school principal, school children and the safety patrol advisor judge the posters. Those selected as best are placed in various strategic places throughout the school. This has helped to make the pupils more careful. It also is an illustration of the correlation of our school curriculum with safety.

The police department, joined by the recreation and physical education departments, sponsors a bicycle safety program in the spring of the year. Pupils are asked to bring their bicycles to school on the selected day. The bicycles are taken to the playfield where the program is conducted. Lines are made on the field to simulate streets. The youngsters are taught the rudiments of cycling in traffic. Hand signals are taught and each child is tested on the fundamentals of safe riding. Those who pass the test satisfactorily are presented with safety bicycle badges. They also receive a code for bicycles.

The fire department also sends representatives to the school each year. The firemen conduct fire drills and hold an inspection of the school plant with a critical analysis of fire hazards.

With the advent of civil defense measures, we

have added another phase to our safety instruction. Each class has been shown repeatedly what to do in case of an emergency. Shelter areas have been established and the pupils know how to reach those areas if the emergency should arise. The importance of being calm, alert and agile has been emphasized. There have been regular drills as a part of the school program. As a consequence the children have achieved a feeling of security and confidence.

Coal Mining

from page 6

tures from newspapers describing and illustrating mine accidents. The causes of the accidents are studied. Analysis is made of the safety precautions which were followed and those which were ignored.

Once a week an inspector from the Bureau of Mines comes to the class to give expert instruction in first aid. Actual demonstrations of caring for injured miners are presented. Instruction is also given in all phases of mine rescue work.

The full value of the safety education phases of the mining course at D.T.H.S. may never be determined. It is felt, however, that if enough young persons are made safety conscious much progress will have been made in eliminating disastrous accidents.

D. W. HORTIN is assistant principal of Du Quoin Township high school, Du Quoin, Illinois.

Safety Education for February, 1952

**Lower
Elementary**

Safety Lesson Unit

February, 1952

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

Teaching language arts, social studies and safety

Travel Safely

TRANSPORTATION SAFETY

Copy and—
Underline the correct answer

On the bus keep your



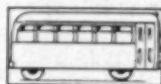
inside.
outside.

A short cut across a



is safe.
is not safe.

Throwing at



or



may hurt
help people.

Let's Talk about the Poster

What did people in wagon trains do for safety?

(They traveled in groups. They had scouts to warn of dangers. They used their eyes and ears to be alert.)

What do we do to travel safely in buses and automobiles?

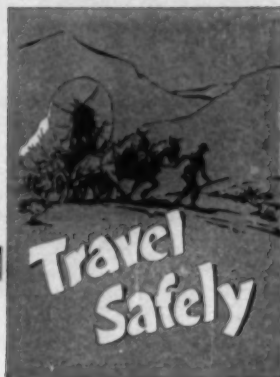
(We keep our hands and heads inside the car, away from the door handle. We stay in our seat. We are alert.)

What do we do to travel safely on foot?

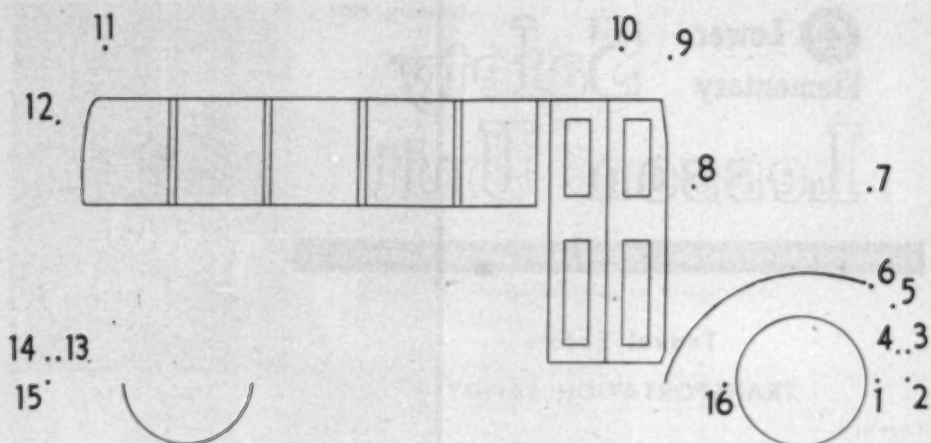
(We walk on sidewalks or crosswalks. We cross at corners. We keep on the "trail." We mind our "scouts"—policemen and safety patrol leaders. We are alert. We watch our step. At railroad crossings we stop, look, listen.)

Note to teachers: For the ten year period, 1939-1949, a total of 1,091 children under 14 were killed while trespassing on railroad property. Many of these deaths were caused by children taking short cuts on railroad property. Others happened when children chose railroad tracks as playgrounds. Your teaching may save the life of one of your pupils.

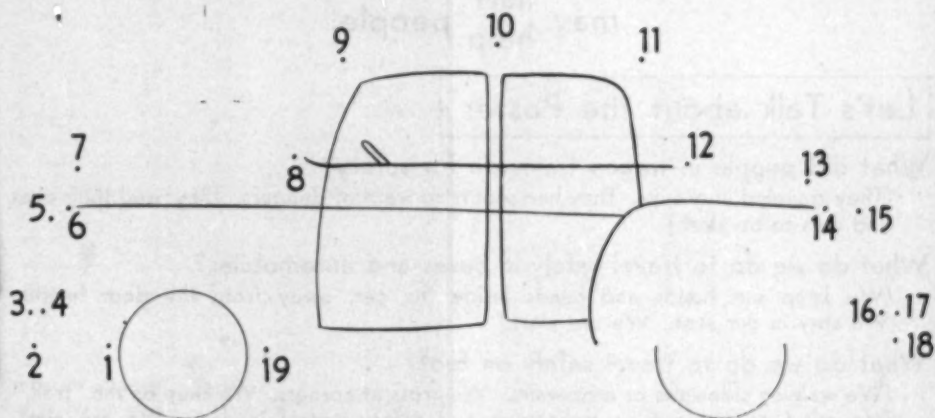
Prepared under the direction of Helen Halter Long, principal, Mamaroneck Jr. High School, Mamaroneck, N. Y.; and Forrest E. Long, professor of education, New York University, New York, N. Y. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in U.S.A.



Sketch 9317A



This is a _____. Get on and off without pushing.
Behave so the _____ can give all his attention
to driving.



This is an _____. Get in and _____
on the curb side. Don't _____ across the street
in the middle of the block to get a ride.

Travel Safely

TRANSPORTATION SAFETY



Sketch 9317A

Travel Then and Now

In the 1800's Americans rode in covered wagons across this land. The wagons were sturdily built so they could move safely over all kinds of trails and even ford streams. For safety, travelers organized into groups or trains. Groups were less likely to be attacked than a single wagon and one traveler could help another in case of trouble. These persons wanted to travel safely. Frequently there were scouts at the head and end of the train to warn the group of bad roads or attacking forces.

Today many of the trails followed by the covered wagons are used by railroads, buses and automobiles.

Modern carriers also try to travel safely. Railroad officials and employees work hard to improve railroad safety. In 1918 there were 9,994 deaths from steam railway accidents; in 1950 there were 3,627.

Airline officials and employees also work for safety in air travel.* Bus and truck companies have safety programs and are proud of their records in reducing accidents.

*The scheduled airline passenger death rate has dropped from 4.6 deaths per 100 million passenger miles in 1933 to 1.1 deaths per hundred million passenger miles in 1950.

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Travel Safely in the Motor Age

Copy and—

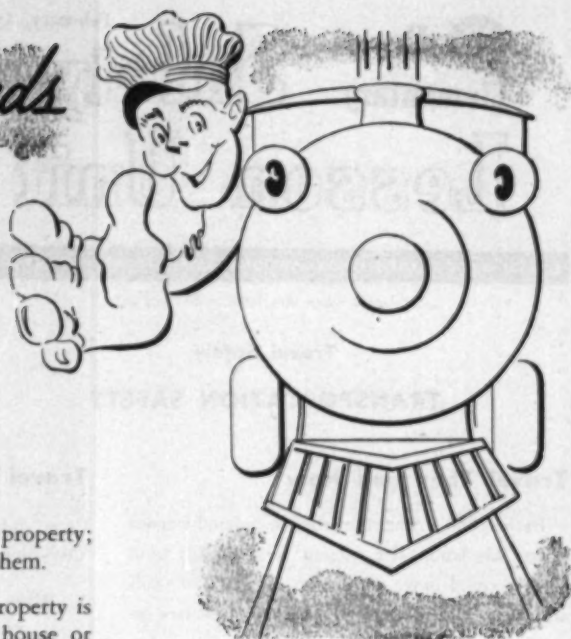
Underline the correct answer.

1. What shape sign marks a railroad crossing
crossbuck diamond octagon
2. According to law a STOP sign means a stop is
required suggested
3. The correct hand signal for a right turn is
arm straight out arm straight down
arm up at a right angle
4. Motorists should not try to pass on
long streets hills
5. At night, with bright lights, the distance a
motorist can see is
almost the same as daytime
much less than in daytime
6. When a car's speed is increased, the stopping
distance is
less more
7. The correct lane for a left turn is
next to center next to curb

Answers: Travel Safely in Motor Age: 1. crossbuck; 2. required; 3. up at a right angle; 4. hills; 5. much less than in daytime; 6. more; 7. next to curb. Railroad Safety Test: 1. F; 2. T; 3. F; 4. T; 5. T; 6. F; 7. T; 8. T; 9. F; 10. T; 11. F; 12. F; 13. F; 14. F; 15. T.

Shake Hands

and Let's Work Together for Safety



Mark the following true or false:

- ___1. Railroad tracks are public property; anyone has the right to walk on them.
- ___2. Trespassing on railroad property is exactly like going into another's house or yard without permission.
- ___3. Hundreds of children have been killed while using railroad tracks or yards as playgrounds.
- ___4. Cross railroad tracks only at public crossings after you're sure the tracks are clear.
- ___5. If a crossing gate has been lowered, wait to cross until the gate is raised. (Don't be so foolish as to risk your life by crawling under or passing around the end of a lowered gate.)
- ___6. Walking railroad trestles is stupid.
- ___7. Crawling under, between, in or around railroad cars may result in death should the train start suddenly.
- ___8. Shooting at trains with BB guns or slingshots may hurt and scar someone.
- ___9. When getting off a train, wait until it comes to a complete stop.
- ___10. You should avoid short cuts across railroad tracks. (Suppose your shoe got caught and a train were approaching.)
- ___11. Walking railroad tracks is safe if you know the times to expect trains.
- ___12. Placing an object on the rails or playing with signals or switches is harmless fun.
- ___13. Boarding a train that has already started is safe if you are good at judging speed.
- ___14. Even though the light is still flashing at a railroad crossing, it is all right to start across double tracks if one train has gone through.
- ___15. Always stop, look, and listen at a railroad crossing whether in a car, on a bicycle or on foot.

Note to pupils and teachers: For the ten year period from 1939 to 1949 exactly 1,091 children under 14 were killed while trespassing on railroad property. Many of these deaths happened while the child was taking a short-cut across railroad property. Others were killed while using tracks as playgrounds.

Safety Education for February, 1952

Junior High Safety Lesson Unit

February, 1952

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

For use in English, social studies, science, guidance and homeroom

Have a Firm Hold

SCHOOL AND HOME SAFETY



Sketch 9318A

Individual or Committee Projects

1. Arrange a Science Laboratory Safety Review. Make red "danger" tags for the various danger areas. Have a chairman give a tag to each contestant, telling him what to do with it. For example the chairman might say: "Put this tag on something in this room that could cause a bad cut." If the contestant does this correctly, his side wins a point.



2. Prepare a report on the accidents that have happened in your school during the past year. Tell how each could have been avoided.



3. Ask the custodian what he thinks would improve the safety of your school.

4. If there is a safety engineer at an industrial plant in your community, ask him to tell how workers are taught safety.

5. Prepare a demonstration of the proper handling of bottles and glassware at home and school. Include (a) the correct way to hold a bottle (b) why and how to label bottles (c) where to store bottles with dangerous contents (d) how to handle medicine bottles (e) how to dispose of broken glassware.



Safety Reminders for School, Shop, Job or Home

Make a poster using one of the following reminders or a variation of your own. Display these safety reminders on the school bulletin board.

Avoid fire. Put paint and oil rags in an airtight metal container.

Keep stairs free. It's a long way down.

Clear your work bench (or kitchen work counter) of everything not needed for the current job.

When oil or grease is spilled, clean up at once.

Oil is slippery and flammable, too.

Your job is not complete until your tools are put away.



Prepared under the direction of Helen Haltei Long, principal, Mamaroneck Jr. High School, Mamaroneck, N. Y.; and Forrest E. Long, professor of education, New York University, New York, N. Y. 1 to 9 copies of this unit, 6 cents each. Lower prices for larger quantities. Printed in U.S.A.

A Reading Exercise

When you read explanatory material or directions remember to read more slowly than when you read for pleasure. When you have read a paragraph think over exactly what directions were mentioned. Study the illustrations and picture yourself doing the motions shown.

Changing a Fuse contains important information that everyone should know. Girls as well as boys should be familiar with electricity in the home.

Changing a Fuse



Fuses are intended to "blow." They are safety valves whose purpose is to prevent so much energy from flowing through wires that the wires become hot thereby starting a fire. When the fuse blows it may mean that there was an overload on the circuit or it may mean that the wires are short-circuited.

In either event the blown fuse is a danger signal. Correct the cause before you replace the fuse.

An exception to the rule may be where a motor (for a refrigerator or a large ventilating fan, for instance) draws a high starting current. If this motor is connected to a circuit already carrying a near-capacity load, it may cause the fuse to blow every time the motor is started. There are special Underwriters' Approved time-delay fuses which may safely be installed to take care of this problem. They will blow if the circuit is grounded or if the overload lasts for more than a few seconds but they will not blow from the mere starting of the motor.

In any event do not replace a blown fuse with a fuse of higher rating. You are only asking for a fire.

If the wiring in your home meets the standards of the Underwriters' Laboratories, if it was done by a licensed electrician to meet code standards, there should be no danger in changing a fuse. However, errors in wiring can occur and to minimize the danger (1) first pull the main switch, (2) stand on an insulating mat (a dry board or a dry rubber mat, for instance) while changing the fuse and (3) put your other hand in your pocket.

A Test to Check Understanding of Explanatory Material and Written Directions

(Fold the page to cover the article.)

Mark these sentences "true" or "false."

- ____ 1. A blown fuse is a danger signal.
- ____ 2. You should first replace the fuse then hunt for the trouble.
- ____ 3. If a fuse blows repeatedly the blown fuse should be replaced with one having a higher amperage.
- ____ 4. There are safe fuses which will take care of temporary overloads.
- ____ 5. Girls should never replace a fuse.
- ____ 6. Fuses are intended to blow.
- ____ 7. All wiring and fuses should meet Underwriters' Laboratories standards.
- ____ 8. It is wise to stand on an insulating mat when changing a fuse.
- ____ 9. If a fuse blows repeatedly, call an electrician.
- ____ 10. One hand should be kept in your pocket while you change a fuse.

Answers to Projects: 1-4 Your own ideas 5. (a) Grip it firmly—not just by the top which may not be so securely fastened. (b) All bottles should be labeled because although you think you will remember the contents, you may not do so. (c) Bottles with special markings. (d) Bottles with poisonous contents should be stored out of the reach of children and not near food. (e) Always read label before taking any medicines; throw away old medicines; keep poisonous medicines out of the reach of children. (f) Sweep up pieces; wrap separately and mark "Broken Glass."

Senior High Safety Lesson Unit

February, 1952

SCHOOL AND COLLEGE DIVISION—NATIONAL SAFETY COUNCIL—CHICAGO 11, ILL.

For use in English, American history, American problems, science, shop, homemaking, guidance or homeroom

Have a Firm Hold

SCHOOL AND HOME SAFETY



Sketch 9318A

School Safety Test (in the handling of laboratory glassware and chemicals)

Copy and—
Fill in the blanks

1. Grasp all laboratory bottles _____
Spilled chemicals and flying glass can cause _____
2. Cover hands with _____ when cutting glass tubing.
3. Use _____ when heating explosive or flammable materials and when pressure is being reduced.
4. Do not _____ glass tubing into rubber; be sure the pieces fit.
5. Clean up broken glassware _____
6. Clear all flammable solvent vapor from glassware to prevent an _____
7. Be sure to read the _____ on the bottle of any chemical reagent even though you think you know what's in it.
8. Use _____ or _____ when handling corrosive chemicals.
9. In order to put out fires quickly, an approved _____ should be accessible at all times.
10. Check frequently to be sure that containers for acids and caustics do not have _____
11. Before setting up an experiment, check every piece of equipment to be sure that it is in _____ condition.
12. Don't _____ around those working at an experiment.

Home Safety Test (in the handling of glassware, bottles, chemicals, etc.)

1. Store all medicines, caustics (such as lye and ammonia) and cleaning agents out of the reach of _____
2. Store gasoline and other flammable fluids only in specially marked safety cans _____ the house.
3. Always reread the label before taking any _____
4. All bottles with poisonous contents should be labeled _____
5. It is recommended that dry cleaning be sent to a _____. Home dry cleaning frequently results in serious burns.
6. Broken glass should be _____ up from the floor or picked up with gloves.
7. Use only _____ fluids when removing spots from a garment.
8. Don't use _____ or _____ to start a fire.
9. All old medicines should be _____ where children cannot salvage them.
10. Many insecticide spray and anti-freeze solutions are _____ and should not be handled near an open flame nor a lighted cigarette.
11. Wrap broken glass separately; do not throw it in the wastebasket.

Answers: School: 1. firmly, burns or cuts; 2. gloves or towel; 3. safety screens; 4. force; 5. at once; 6. explosion; 7. label; 8. gloves, goggles; 9. fire blanket; 10. cracks; 11. children; 12. crowd. Home: 1. children; 2. outside; 3. medicine; 4. poison; 5. cleaning establish-ment; 6. wags; 7. non-flammable; 8. gasoline, kerosene; 9. discarded; 10. flammable; 11. separately.

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Aren't People Funny

Showoff



He's as strong as an ox and wants you to know it. No load is too heavy for him.

He poses like a returned hero, especially when there are girls around. He'll do anything to get attention. If

he keeps it up he'll get lots of attention—from the doctor.

Playboy



It's a big joke to trip a fellow and watch him hit the floor—in the comics. Playboy can put his pal in the hospital.

Playboy never means any harm but he can cause a lot of trouble. When you are

playing, play hard and have lots of fun—not at the expense of the other fellow.

Hairtrigger Harry



If something sticks—jerk it! If a job goes wrong—slam things around! If Harry hurts himself it's not his fault.

Easy does it! When you get bothered, back off and cool off. You'll get along

better with other people and with yourself.

Sloppy Joe



Knee-deep in scrap. One more piece won't hurt. So he just goes on piling it up.

That pile started with just one piece of scrap. If Joe had put that first piece where it belongs, there would be

no pile.

Make your own gallery of characters whose safety habits at school, at home or on the job endanger themselves and others. Don't name anyone by name. If the shoe fits, let the person wear it. Or better yet, learn not to wear it!

Sloppy Sue



What a mess! It will take a long time to clean it up, meanwhile it's a hazard. That cupboard door is just waiting to crack her head. The spilled suds would like to give her a fall. The knives are lurking beneath the plates to give her a cut.

A good cook cleans up as she cooks.

Tired Trixie



Trixie is too tired to get the stepladder. She'll use a chair and maybe have time for a long rest in bed—after she falls.

She is too tired to put things away. It's easier to put them on the stairs. She's too tired to turn pot handles in so small children can't reach them.

Know-it-all Katie



You can't tell her how to do a job! She doesn't need safety precautions. The rules are good for others—not for her.

The grandstand player never gets far in sports or on the job, either.

Timid Tessie



She's not sure of herself and she's afraid to ask questions. She doesn't want to seem dumb. So she just fumbles along and hopes she'll catch on before she catches trouble.

Don't be timid, Tessie. Nobody's going to bite you. Go ahead and ask. That's the way to learn. At a new task or on a new job people expect you to ask questions. If you act too wise they'll know you're bluffing.

small price for *Safety...*

the cost of a well equipped School Safety Patrol Corps is a small price to pay for the safety of school children.

Well uniformed patrolmen command attention and are able to act with authority. Graubard's has the uniform equipment that will simplify the task of your patrol corps, enable it to operate more efficiently.

Caps, badges, patrol belts, armbands; and for bad weather, rubber raincoats and helmets in high vision WHITE, YELLOW, or BLACK. Send for complete catalog NOW.



Corporal Digby
Safety Sentinel



Armbands



Rainwear



Badges

Caps



GRAUBARD'S

"America's Largest Safety
Patrol Outfitters"

266 Mulberry St., Newark 5, N. J.



PLASTIC SAM BROWNE BELTS FOR GREATER SAFETY



Available in either white or Federal yellow, these plastic belts glisten in the sun and are bright on dark days. Flexible—Smartly Styled—Adjustable—Easily Cleaned.

Federal Yellow Flags with desired lettering and Yellow Raincoats with Hats and Cape Caps to match complete the attire of your School Patrol.

Endorsed by Safety Councils, Auto Clubs
and School Authorities Everywhere

The M. F. MURDOCK CO.
AKRON & OHIO

J. H. Harvey Retires; Was Safety Specialist

Julien H. Harvey, manager of the accident prevention department of the Association of Casualty and Surety companies since 1938, has retired from that position.

His retirement was announced at a dinner at the Waldorf-Astoria hotel, New York City, which was attended by some 75 leaders in the field of accident prevention.

Mr. Harvey has been interested in traffic and industrial safety since 1916 when he organized the safety program of the Kansas City (Mo.) Traction Company.

For nine years Mr. Harvey was an employee of the National Safety Council, part of the time in the promotion and organization of local safety councils and part of the time as manager of the New York office. He became an executive of the Greater New York Safety Council and, from that position, went to the Association of Casualty and Surety Companies as head of its accident prevention department.

Mr. Harvey is best known, perhaps, to school people particularly interested in safety education through his work in encouraging the spread of driver education and for his assistance in obtaining funds for the establishment of the Center for Safety Education at New York University.

Borgerson

from page 14

from several factors: (1) few colleges offer adequate preparation for secondary teachers; (2) fewer materials are available; (3) and most important of all is the failure on the part of most schools to assign the organization, administration and promotion of the safety program to one person.

It is recommended that every school system designate a person (who might be a safety committee chairman, a coordinator or supervisor) who shall have responsibility for the school safety program. The person might be a teacher or principal. In any event the door of the school administrator's office must be open for a discussion of the various problems. This person should use every means available to become acquainted with all the phases of safety, including college courses, working with business, industry, the police and fire departments, the National Safety Council and other safety organizations.

New Game

from page 17

8. Interfering with an opponent who does not have the ball.

We penalize these violations with one free throw and charge the offender with one personal foul. Four personal fouls automatically disqualify the player from further participation in the game.

The game has proven to be very fast and slightly rough at times. However our experience has been that when the participants learn the rules and play the game a few times, they begin to eliminate much of the roughness and concentrate on their scoring offense and their defensive game.

Officials must use a great deal of discretion in calling personal fouls. For instance, although it is a foul to grab above the shoulders or below the waist it is entirely possible that situations will come up in which violations are entirely unintentional, e.g., a man with the ball may attempt to evade his opponent by ducking which might result in his coming up with his opponent's arm around his neck, thus making it appear that he was grabbed around the neck.

Officials may control the element of roughness by simply calling "held ball" more frequently, although it is recommended that a held ball should only be called when the ball becomes so tied up between two or more players that it is impossible to throw or pass the ball.

Very few injuries have been reported at Purdue in the two years experience with American Ball. There have been the common sprained or turned ankles, bruises and sore muscles. We have yet to experience the first broken bone.

The most serious accident reported in the fall of 1949 was one in which a boy lost two front teeth by making contact with his opponent. The boy does not know whether or not his opponent kicked him in the mouth.

In the fall of 1950 we had one slight brain concussion, which we consider as our most serious injury. The concussion happened when a boy, leaping into the air to catch a pass, lost his balance and hit his head on the ground upon falling.

American Ball, in all probability, will never replace touch football in college intramural sport programs. American Ball is not too well known and, perhaps, some schools do not need to replace touch football because they are not experiencing serious accidents. However, for schools that may be looking for a new sport, may we recommend American Ball.

Safety Education for February, 1952

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Manley

from page 15

to what action should be taken, and exercise individual initiative in taking appropriate action. This cannot be done by teaching pupils in situations where someone else constantly evaluates the various elements, makes decisions for them, and directs their activities.

The Orthopedic division of the American Medical Association held a joint session with the National Safety Council in 1950. In this session two orthopedic researchers presented voluminous material to indicate that the child under six years of age who is not permitted to learn to avoid accidents by suffering minor injuries tends to become accident prone. To me, this is another proof that the key to good safety education is the teaching of independence in thought and action in relation to hazardous situations.

2. Another major reason for the increase in accidents in the 15 to 24 year-age group is that the adolescent and youth finds himself in situations which he has not experienced before. The behaviors learned in childhood are not adequate to meet these situations.

In the first place the adolescent is quite a different person to what he was as a child. True enough, he has the same body and mind and many of his basic behaviors will continue to function.

But many new elements enter into the life situations he faces. New drives and energies begin to function in his personal make-up which result in new interests and desires. One of the strongest of these is to throw off the restraints imposed upon him in childhood by those around him. He desires to achieve personal independence.

Secondly, partly because of his personal development and partly because of his changed status in society which comes with this development, new and untried experiences are open to him. There are new elements in his daily living which he has not had to face before; therefore, he has to learn new patterns of behavior for which no previous education has adequately prepared him. Thus, new education must be provided.

Not only must additional education be provided, it must be different from that provided for younger persons because of his now changed personality. Those who are charged with the safety education of adolescents and youth strongly tend to take the attitude that, because

the adolescent has been taught good safety behavior in the elementary school, safety education does not need as much emphasis on the secondary and higher education levels.

They also tend to try to teach safety in much the same manner in which it was taught on the lower levels. They thereby fail to take into account the different person which the adolescent is and the new situations in which he finds himself, and the changes in teaching practices which must be made if they are to be effective with adolescents as well as with young adults.

Perhaps this is just another way of saying that those who instruct must be continuously on the alert to insure that those instructed take the new elements in any situation into account, and to insure that changes in behavior to meet the new elements are developed.

In other words, safety education must be continuous and must be such that it changes the behavior of those taught.

Jack

from page 14

school curriculum makes it impossible for the high school teacher to follow carefully throughout the day the behavior of the child such as the elementary teacher is able to do in most occasions.

This apparent difference in teacher guidance and direction, and pupil-teacher relationship, plus organization and counselling probably has some effect upon the safety practices of a number of the pupils.

2. The adolescent child in high school assumes and requires a greater degree of independence. The home feels that he should be allowed greater motility, that his orbit of operation should be expanded, and that because he is growing up he can, and usually does, demand an opportunity to make his own decisions. All of this leads to a greater exposure to hazards in the life of the secondary school child.

3. There are certain characteristics of the adolescent child which probably make him more accident prone. In the first place he dislikes adult direction, particularly that of his parents, although he is more apt to respond to the direction of some mature person whom he may admire such as a teacher or group leader. He may be quite awkward and that, in turn, may be responsible for some of his difficulties.

He is also in a period of glandular imbalance which may be accompanied by emotional in-

stability. This may also lead one to become more accident prone.

Many of the activities which he selects are more hazardous than the ones he has chosen as an elementary school pupil. He desires recognition, particularly from members of his group, and is prone to select activities which will lead to group approval.

In summary, his environment, his changing attitudes, his physiological and emotional changes all must play some part in the accident picture as it affects the secondary school pupil. Functional experiences that have appeal to the typical child may help him bridge the gap that seems to exist.

5-Year Iowa Program

from page 13

of constant decrement in safe driving before they reach a point where improvement begins. This is a sad commentary on the prowess of men. It seems that we need to be teaching more boys at an earlier grade in school. At present the largest single school-trainee group in Iowa is senior girls.

3. Older people drive more in the earlier parts of the day, while young people drive more later in the day and at night. Perhaps more attention should be given to night driving which is well known to be much more dangerous.

4. It seems a special study should be given methods of teaching driving. Little, if any, data are available on the merits of various methods and techniques now being used. Most of this is in the opinion stage and practices differ widely from school to school.

The Allstate Grant for Driving Research carries five or more fellowships ranging from \$540 to \$1125 a year for graduate study. Full academic credit is given. Courses may be elected as a minor in safety and human conservation which is administered in the Department of Psychology. Majors may be elected in psychology, engineering, physics, mathematics, physical education, education, agriculture and certain other related areas. Information will be furnished to anyone interested.

At present about twenty special research problems are under way in the Driving Laboratory including a contract research project on driver selection in cooperation with the Department of Army.

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TRADE PUBLICATIONS

The following publications are intended for the guidance of those responsible for the purchase of equipment to promote safety in the school. The coupon below will bring FREE to responsible school personnel any or all of those listed.

1. **Use of Mercurochrome for First Aid:** Literature tells of the practical uses of mercurochrome, at home or in school, as an antiseptic in first aid treatment of minor wounds. Hynson, Westcott & Dunning, Inc.
2. **Educational Filmstrips:** Catalog of standard and recent filmstrips and color slides, classified both as to subject-matter and to the grade-level of audiences ranging from young children to adults. Society for Visual Education, Inc.
3. **Traffic Control for School Crossings:** Illustrated folder describes a portable, battery operated traffic control light designed for use during rush hours at school crossings. Obtainable with either red or amber colored light. Saf-A-Lif Lite Co.
4. **Fire Exit Hardware:** Catalog describes a line of self-releasing fire exit latches and devices for all type doors. Specifications and suggestions on adequate doors and hardware for each fire exposure situation. Vonnegut Hardware Co.
5. **Warning Flags for School Patrols:** Folder describes regulation warning flags for school patrols of yellow rubber with weatherproof lettering reading "School." The flags are eighteen by twenty inches. The M. F. Murdock Co.
6. **"Mr. Higby":** Booklet discusses floor maintenance in institutional buildings. Cleaning methods and specific treatment for each type floor discussed together with non-skid polishes for safety. Walter G. Legge Co., Inc.
7. **Portable Policeman:** Information on a portable sign for school areas. A compact unit, the "Portable Policeman" is also self-powered. Cub Industries, Inc.

SAFETY EDUCATION

FEBRUARY, 1952

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A Tool

from page 9

and are planned for a time when spring weather brings children outdoors in ever increasing numbers.

In the April child traffic safety package, Operation Safety users will receive materials which may be used to develop a program appealing:

To children. This approach is emphasized as being of key importance. The safety message must be interesting and entertaining. It must be translated into understandable terms the child can readily associate with his own everyday life. The Operation Safety organizer is urged to enlist the support of Boy Scouts, Girl Scouts, Camp Fire Girls, Cub Scouts and the other organizations that develop the child's interests.

To parents. The importance of home training in traffic safety is emphasized. They must realize that their own words and examples will do much to teach the child self reliance and how to behave safely when alone in traffic. The many civic and fraternal organizations, both for men and women in any community, are emphasized as offering avenues of approach through the special interests of each club. PTA groups are outstanding examples of such an organization.

Parents are also urged to recognize that the best assistance anyone can give to school officials and teachers is to realize the importance of the safety education the child receives in the classroom. They must willingly give every aid to school safety efforts and to any needed additional safety educational means that would help the school program. They must live safety at home to the extent that an unwitting act on their part does not tear down in a moment what hours of safety education in schools has taught the child . . . they must *know* what safety education in the schools is doing so that one type of safety training will not contradict or defeat the other.

To all drivers and walkers. The realization will be driven home that their example is important to youngsters . . . that they, as older folks, must take greater care so that their acts will not misguide some observing youngster. They are reminded that when they drive they must always expect the unexpected when children are near the street or highway.



Captain
Lewis L. Millett
Medal of Honor

While personally leading his Infantry company in an attack on a strongly held position near Soam-Ni, Korea, Captain Millett noted that his 1st Platoon was pinned down by heavy enemy fire. Ordering another platoon to the rescue, he led a fixed bayonet



assault up the fire-swept hill. In the traditional Infantry spirit, Captain Millett charged into the enemy positions, bayoneting two of his foes, then shouting encouragement to his troops, continued throwing grenades, and clubbing and bayoneting the enemy. Inspired by his example, the attacking unit routed the enemy, who fled in wild disorder.

"It's an uphill struggle," says Captain

Millett, "to build a working peace. Unfortunately, the only argument aggressors respect is *strength*. Fortunately we've learned this lesson in time.

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Remember that when you're buying bonds for national defense, you're also building a personal reserve of cash savings. Remember, too, that if you don't save *regularly*, you generally don't save at all. Money you take home usually is money spent. So sign up today in the Payroll Savings Plan where you work, or the Bond-A-Month Plan where you bank. For your country's security, and your own, buy United States Defense Bonds now!

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